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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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08/24/2001

Alan N. Willson JR.

G&C 31006.2-US-U1

2152

22462

7590

05/11/2006

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EXAMINER

NGO, CHUONG D

ART UNIT

PAPER NUMBER

2193

DATE MAILED: 05/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,978

Applicant(s)

WILLSON ET AL.

Examiner

Chuong D. Ngo

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2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,14,17,18,22,29,32,33,37-39,44,45,49 and 51-53 is/are rejected.
- 7) ☒ Claim(s) 2-4,6-13,15,16,19-21,23-28,30,31,34-36,40-43,46-48 and 50 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1,18,33,37-39,44,45,49 and 51-53 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kusuda (5,333,288).

Kusuda discloses in figure 2 a circuit for adding a first input (609) and a second input (output of 103) to produce a sum output (505) according the bypass signal. The circuit includes a third input for accepting the bypass signal (combination of 601 and inherent control signal to 209), a logic including an adder (102) and a latch (209) for holding the at least one input according to the bypass signal (see col. 7, lines 12-13), a bypass path (609), and a second logic (205) for passing only on of the adder output (607) or an output of the bypass path according to the bypass signal as claimed.

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4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kusuda (5,333,288) as applied to claim 1 above, and further in view of Takahashi (5,875,124).

It is noted that Kusuda does not specifically disclose the adder (102) is a transmission adder. However, Takahashi discloses adders that operates rapidly with minimal power consumption (see abstract) using transmission gates. Thus, it would have been obvious to a person of ordinary skill in the art to implement the adder of Kusuda using transmission gates as taught by Takahashi in order to improve the performance of the adder.

5. Claims 14,17,29 and 32 stand rejected under 35 U.S.C. 102(b) as being clearly anticipated by Smith, Jr. (3,482,085).

Smith Jr. discloses in figure 1 an adder for adding a first input (E), a second input (P), and a carry input (F) to produce an adder output (T) and a carry out (G). The adder also has a bypass input (K) for controlling the logic of the adder to generate an adder output and a carry without computing as claimed (suppressing the arithmetic operations of the adder, see abstract and col. 5, lines 40-71).

6. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, Jr. (3,482,085) as applied to claim 1 above, and further in view of Takahashi (5,875,124).

It is noted that Smith, Jr. does not specifically disclose the adder (102) is a transmission adder. However, Takahashi discloses adders that operates rapidly with minimal power consumption (see abstract) using transmission gates. Thus, it would have been obvious to a

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person of ordinary skill in the art to implement the adder of Smith, Jr. using transmission gates as taught by Takahashi in order to improve the performance of the adder.

7. Claims 2-4,6-13,15,16,19-21,23-28,30,31,34-36,40-43,46-48, and 50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Applicant's arguments filed 03/02/2006 have been fully considered but they are not persuasive regarding claims 14,17,29,22 and 32.

It is clear from figure 1 of Smith that in the bypass mode, the circuit does not operate to compute the adder output as the sum of first signal E, second signal P and a carry-in F, but outputs an output signal equal to the second input P regardless the values first signal E and carry-in F.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong D. Ngo whose telephone number is (571) 272-3731. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Chuong D Ngo
Primary Examiner
Art Unit 2193

05/10/2006